Se Technical Sub Committee
May Meeting

May 8, 2019
3:30 p.m. - 5:00 p.m. MST

In attendance: Jody Fisher (co-chair), Lauren Sullivan (co-chair), Joe Beaman (USEPA), David DeForest (Windward Env.), Genny Hoyle (KTOI), Karen Jenni (USGS), Heather McMahon (KNC), Dave Naftz (USGS), Theresa Presser (USGS), Erin Sexton (CSKT), Joe Skorupa (USFWS); Myla Kelly (MDEQ), Sheldon Reddekopp (BC ENV), Michel Ryan-Aylward (BC ENV), Jessica Penno (BC ENV), Kevin Rieberger (BC ENV), Jason Gildea (USEPA), Nigel Fisher (Teck), Lars Sander-Green (Wildsight)

Meeting Summary

Co-Chairs began the meeting by acknowledging new roles for representatives of indigenous governments and US Tribes as participatory members of the committee.
Co- Chairs summarized current status of the committee's work and key outcomes from the previous call on April 4, 2019.

Meeting objective: continue to facilitate a discussion on the "Proposed Workplan for Developing a Site-specific Selenium Water-Column Criterion for Lake Koocanusa." Discuss questions and clarifications, and capture additional comments from Se TSC members on the proposed work plan.

Background on the Workplan by Myla Kelly from MDEQ. Myla outlined the development of the Workplan which MDEQ and BC ENV support. Myla expressed MDEQ and BC ENV's commitment moving forward is to be transparent in the policy decision making process and to be timely and responsive in what the responsibilities are from the regulatory side.

Alternative levels of protection:
Sheldon Reddekopp (BC ENV) walked the group through the alternative levels of protection document that was circulated to participants in advance of the meeting and highlighted areas where input was needed.

Alternative #2 - David DeForest (Windward Env.) asked for clarification about the distinction between using criterion for the modeling runs vs. assessing compliance against that criterion later on. BC ENV clarified that the modeling work and the different levels of protection are intended to provide policy decision-makers with as much useful information as possible to inform their decision on a new threshold. A separate decision by those same people will follow regarding methods for assessing compliance.

Alternatives #3 & 4 - The group discussed whether these proposed alternatives would be protective of downstream endangered species such as the white sturgeon, and whether they would provide useful information to policy decision-makers.

Joe Skorupa (USFWS) explained the legal layer of the endangered species act (ESA), including, if an individual protected under the ESA is harmed, that is a violation of the act. He described the process of requiring an incidental take statement and discussed a "no effect" considered. It was put forth that USFWS proposed to USEPA in 2005 that if fish tissue samples were below 5.5 mg Se/Kg that is considered to have no effect.

Joe Beaman (USEPA) suggested that another way to go about this is to review d/s sturgeon data and impose monitoring requirements to ensure that dam discharge water quality does not harm sturgeon.

Clarification needed: what egg ovary concentration would be needed to ensure a level of protection to have no impact or minimal impact on downstream white sturgeon (**ACTION**).

Alternatives #5 – Explanation was given that this option combines Alternative #2 and Alternative #3 to ensure both a mean and maximum are considered. It was clarified that this alternative is the equivalent of taking the lower number from Alternative #2 and Alternative #3.

David Deforest raised a question about site- and species-specific thresholds; and whether toxicity studies currently underway would be integrated into the committee's work, such as an ongoing Teck study for redside shiner toxicity. He also suggested that there is a difference between internal and external exposure. If we know red side shiner has a sensitivity of x, don't know why we would compare the red shiner to a guideline. We can use this information for a recalculation.

Clarification needed: How will redside shiner study be used? Will species specific thresholds be included as an alternative?

Section 5.0 Bioaccumulation Factor (BAF)

Joe Beaman (USEPA) outlined that the BAF is a secondary model intended to serve as a point of comparison to check the results of the primary mechanistic model. It uses tissue and water column data to back-calculate an acceptable water concentration. The key similarity between the 2 models is the [Se] in water. The decisions made for the mechanistic bioaccumulation model should be mirrored for the BAF model. In addition, spatial and temporal considerations that are the basis of decisions, in the mechanistic bioaccumulation model should again, be mirrored for the BAF model (to the extent possible).

Key questions for the BAF are: who would run the model and which species would be included?

- Joe Beaman confirmed EPA has a contract with Great Lakes Environmental, to run the model. The group agreed that criteria should be developed to guide species selection and that Joe Beaman would develop an initial draft for consideration by the committee. (**ACTION**)

MT DEQ confirmed that they are moving forward with contracting for USGS to run the primary model and will keep the committee informed of progress. Co-Chairs also confirmed that an MRC teleconference meeting is being planned for June.

In closing, Sheldon acknowledged that the committee co-chairs and BC ENV are working to improve relations with the Ktunaxa Nation Council and committed to provide clarification about timelines for the rest of the committee's work. (**ACTION**)